

Here Comes the title

by

Here is the author

First supervisor: Prof. Dr. Karl Jonas
Second supervisor: Prof. Dr. Kerstin Uhde
External supervisor: Dr. Mathias Kretschmer
External company Fraunhofer FOKUS
Handed in: January 15,2014

Persönliche Erklärung

"Erklärung"

Hiermit erkläre ich an Eides Statt, dass ich die vorliegende Arbeit selbst angefertigt habe; die aus fremden Quellen direkt oder indirekt übernommenen Gedanken sind als solche kenntlich gemacht. Die Arbeit wurde bisher keiner Prüfungsbehörde vorgelegt und auch noch nicht veröffentlicht.

Bonn, (January 15,2014)		
	(Here is the author)	

Contents I

Contents

Lis	st of Tables	П
Lis	st of Figures	Ш
Lis	st of Abbreviations	IV
1.	Introduction 1.1. A table	1 1 1
Α.	Appendix	3

List of Tables

	• •	•	_		
ı	List	of	Ta	h	IΔC
	_13 L	OI.	ı a	u	ı

1	State of the art of analy	ytical models for the EDCA
1.	State of the art of anal	fucui inoucis for the EDC11

List of Figures

	•	
Lict	Ot.	Figures
LISL	OI.	i igui es

 List of abbreviations IV

DCF Distributed Coordination Function

Introduction 1

1. Introduction

This is the introduction of an awesome thesis. In the following are some usefull examples.

1.1. A table

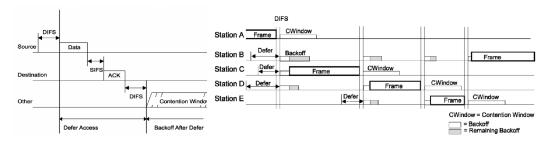
Here is a cool table 1 you can reference it in the text.

Publication	Assumptions		Metric		Validation		Origin	
Fuoncation	Saturated	Ideal channel	Throughput	Delay	Simul.	Experim.	Cali	Bianchi
[RR04]	√	✓	✓		√			✓
[MHW03]	✓	✓	√		√			✓
[KTBG04]	✓	✓	√	√	√			✓
[EO05]			√	√	√			✓
[BV05]	√	√			√		√	

Table 1: State of the art of analytical models for the EDCA

1.2. A figure

Here is a cool figure. It is even a subfigure.



- (a) Basic access [iee12, p. 838]
- (b) Back-off procedure [iee12, p. 839]

Figure 1: Distributed Coordination Function (DCF)

References 2

References

[BV05] A. Banchs and L. Vollero. A delay model for IEEE 802.11e EDCA. *Communications Letters, IEEE*, 9(6):508–510, 2005.

- [EO05] P. Engelstad and O. Osterbo. Delay and Throughput Analysis of IEEE 802.11e EDCA with Starvation Prediction. In *The IEEE Conference on Local Computer Networks*, pages 647–655, 2005.
- [iee12] IEEE Standard for Information technology-Telecommunications and information exchange between systems Local and metropolitan area networks-Specific requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications. *IEEE Std 802.11-2012* (*Revision of IEEE Std 802.11-2007*), pages 1–2793, Feb 2012.
- [KTBG04] Z.-N. Kong, D. H. K. Tsang, B. Bensaou, and D. Gao. Performance analysis of IEEE 802.11e contention-based channel access. *IEEE Journal on Selected Areas in Communications*, 22(10):2095–2106, 2004.
- [MHW03] S. Mangold, G. Hiertz, and B. Walke. IEEE 802.11e wireless LAN resource sharing with contention based medium access. In *Proceedings on 14th IEEE Personal, Indoor and Mobile Radio Communications*, volume 3, pages 2019–2026, 2003.
- [RR04] J. Robinson and T. Randhawa. Saturation throughput analysis of IEEE 802.11e enhanced distributed coordination function. *IEEE Journal on Selected Areas in Communications*, 22(5):917–928, 2004.

Appendix 3

A. Appendix

This is the appendix